CEC-ICMC 2017 - Abstracts, Timetable and Presentations



Contribution ID: 347

Type: Poster Presentation

Y2O3-doped YBCO Thin Films Prepared by Polymer-Assisted Fluorine-Free Metal Organic Deposition

Tuesday 11 July 2017 13:00 (2 hours)

Compared with the traditional TFA-MOD methods, the PAFF-MOD method can significantly eliminate the toxicity of fluoride. In addition, the heat treatment process can be simplified and the heat treatment time can be shortened greatly. In this work, a polymer-assisted fluorine-free metal organic deposition (PAFF-MOD) was used to prepare Y2O3-doped YBCO thin film on CeO2-buffered hastelloy. The morphological features of YBCO films were characterized by FESEM. The crystal structure of YBCO film was determined by XRD and Raman. The surface morphology was investigated by AFM. The relationship between the Jc of YBCO films and Y2O3 content is studied. The relationship among Jc, magnetic field and Y2O3 content is carefully studied.

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